

IN THE CLAIMS:

1. (Previously Presented) A plasma treatment apparatus comprising:
 - a plasma generation unit comprising a first electrode and a plurality of second electrodes opposed to the first electrode;
 - a gas supply unit adapted to blow a process gas into a space between the first electrode and the plurality of second electrodes; and
 - a unit adapted to selectively apply a voltage to at least one electrode among the plurality of second electrodes,wherein the plurality of second electrodes are arranged linearly in one line, and
wherein the first electrode and the plurality of second electrodes are arranged perpendicular to a subject substrate.

2. (Previously Presented) A plasma treatment apparatus comprising:
 - a plasma generation unit comprising a first electrode and a plurality of second electrodes opposed to the first electrode;
 - a gas supply unit adapted to blow a process gas into a space between the first electrode and the plurality of second electrodes; and
 - a unit adapted to selectively apply a voltage to at least one electrode among the plurality of second electrodes,wherein the plurality of second electrodes are arranged linearly in one line,
wherein at least one of the plurality of second electrodes has a length of equal to or less than 1 mm on a side of an object to be treated, and
wherein the first electrode and the plurality of second electrodes are arranged perpendicular to a subject substrate.

3. (Previously Presented) A plasma treatment apparatus comprising:
 - a plasma generation unit comprising a first electrode and a plurality of second electrodes opposed to the first electrode adapted to form forming a pattern on an object to be treated;
 - a gas supply unit adapted to blow a process gas into a space between the first electrode and the plurality of second electrodes; and

a unit adapted to selectively apply a voltage to at least one electrode among the plurality of second electrodes,
wherein the plurality of second electrodes are arranged linearly in one line,
wherein at least one of the plurality of second electrodes has a length of equal to or less than a square of a line width of the pattern on a side of the object to be treated, and
wherein the first electrode and the plurality of second electrodes are arranged perpendicular to a subject substrate.

4. (Original) A plasma treatment apparatus according to claim 3, wherein the pattern is a wiring pattern.

5.-9. (Canceled)

10. (Previously Presented) A plasma treatment apparatus according to claim 1, wherein the plurality of second electrodes are processed by using a focused ion beam apparatus, photolithography, or a laser lithography apparatus.

11. (Previously Presented) A plasma treatment apparatus according to claim 2, wherein the plurality of second electrodes are processed by using a focused ion beam apparatus, photolithography, or a laser lithography apparatus.

12. (Previously Presented) A plasma treatment apparatus according to claim 3, wherein the plurality of second electrodes are processed by using a focused ion beam apparatus, photolithography, or a laser lithography apparatus.

13. (Previously Presented) A plasma treatment apparatus according to claim 1, wherein the first electrode and the plurality of second electrodes are covered with a dielectric.

14. (Previously Presented) A plasma treatment apparatus according to claim 2, wherein the first electrode and the plurality of second electrodes are covered with a dielectric.

15. (Previously Presented) A plasma treatment apparatus according to claim 3, wherein the first electrode and the plurality of second electrodes are covered with a dielectric.

16. (Previously Presented) A plasma treatment apparatus according to claim 1, wherein the voltage is applied to the predetermined electrode for performing a film formation, an etching treatment, or a surface modification over an object to be treated.

17. (Previously Presented) A plasma treatment apparatus according to claim 2, wherein the voltage is applied to the predetermined electrode for performing a film formation, an etching treatment, or a surface modification over an object to be treated.

18. (Previously Presented) A plasma treatment apparatus according to claim 3, wherein the forming of the pattern is performed under atmospheric pressure or under pressure approximate to atmospheric pressure.

19. (Previously Presented) A plasma treatment apparatus according to claim 1 further comprising a stage to which an object to be treated is fixed,
wherein a scanning of the stage is synchronized with the application of the voltage to the predetermined electrode.

20. (Previously Presented) A plasma treatment apparatus according to claim 2 further comprising a stage to which the object is fixed,
wherein a scanning of the stage is synchronized with the application of the voltage to the predetermined electrode.

21. (Previously Presented) A plasma treatment apparatus according to claim 3 further comprising a stage to which the object is fixed,
wherein a scanning of the stage is synchronized with the application of the voltage to the predetermined electrode.

22. (Previously Presented) A plasma treatment apparatus according to claim 16, wherein the film formation, the etching treatment, or the surface modification is performed under atmospheric pressure or under pressure approximate to atmospheric pressure.

23. (Previously Presented) A plasma treatment apparatus according to claim 17, wherein the film formation, the etching treatment, or the surface modification is performed under atmospheric pressure or under pressure approximate to atmospheric pressure.

24. (Withdrawn) A plasma treatment apparatus comprising:
a plurality of plasma generation units each comprising a first electrode and a second electrode;
a gas supply unit adapted to blow a process gas into a space between the first electrode and the plurality of second electrodes; and
a unit adapted to selectively apply a voltage to at least one electrode among the second electrodes,
wherein the plurality of plasma generation units are arranged linearly in one line, and
wherein the first electrode and the second electrode are arranged perpendicular to a subject substrate.

25. (Withdrawn) A plasma treatment apparatus according to claim 24, wherein a relatively scanning of the plurality of plasma generation units is synchronized with the application of the voltage to the predetermined electrode.

26. (Withdrawn) A plasma treatment apparatus according to claim 24, wherein the plurality of second electrodes are processed by using a focused ion beam apparatus, photolithography, or a laser lithography apparatus.

27. (Withdrawn) A plasma treatment apparatus according to claim 24, wherein the first electrode and the plurality of second electrodes are covered with a dielectric.

28. (Withdrawn) A plasma treatment apparatus according to claim 24, wherein the voltage is applied to the predetermined electrode for performing a film formation, an etching treatment, or a surface modification over an object to be treated.

29. (Withdrawn) A plasma treatment apparatus according to claim 24 further comprising a stage to which an object to be treated is fixed,
wherein a scanning of the stage is synchronized with the application of the voltage to the predetermined electrode.

30. (Withdrawn) A plasma treatment apparatus according to claim 28, wherein the film formation, the etching treatment, or the surface modification is performed under atmospheric pressure or under pressure approximate to atmospheric pressure.

31. (Withdrawn) A plasma treatment apparatus comprising:
a plasma generation unit comprising a first electrode and a plurality of second electrodes opposed to the first electrode;
a gas supply unit adapted to blow a process gas to a substrate to be treated through a space between the first electrode and the plurality of second electrodes; and
a unit adapted to selectively apply a voltage to at least one electrode among the plurality of second electrodes,
wherein the plurality of second electrodes are arranged linearly in one line, and
wherein the first electrode and the plurality of second electrodes are arranged perpendicular to a subject substrate.

32. (Canceled)

33. (Withdrawn) A plasma treatment apparatus according to claim 31, wherein the plurality of second electrodes are processed by using a focused ion beam apparatus, photolithography, or a laser lithography apparatus.

34. (Withdrawn) A plasma treatment apparatus according to claim 31, wherein the first electrode and the plurality of second electrodes are covered with a dielectric.

35. (Withdrawn) A plasma treatment apparatus according to claim 31, wherein the voltage is applied to the predetermined electrode for performing a film formation, an etching treatment, or a surface modification over an object to be treated.

36. (Withdrawn) A plasma treatment apparatus according to claim 31 further comprising a stage to which an object to be treated is fixed,
wherein a scanning of the stage is synchronized with the application of the voltage to the predetermined electrode.

37. (Withdrawn) A plasma treatment apparatus according to claim 35, wherein the film formation, the etching treatment, or the surface modification is performed under atmospheric pressure or under pressure approximate to atmospheric pressure.

38. (Withdrawn) A plasma treatment apparatus comprising:
a plasma generation unit comprising a first electrode and a plurality of second electrodes opposed to the first electrode;
a gas supply unit adapted to blow a process gas through a first space and a second space continuously, the first space being between the first electrode and a substrate and the second space being between the plurality of second electrodes and the substrate; and
a unit adapted to selectively apply a voltage to at least one electrode among the plurality of second electrodes,
wherein the plurality of second electrodes are arranged linearly in one line, and
wherein the first electrode and the plurality of second electrodes are arranged perpendicular to a subject substrate.

39. (Canceled)

40. (Withdrawn) A plasma treatment apparatus according to claim 38, wherein the plurality of second electrodes are processed by using a focused ion beam apparatus, photolithography, or a laser lithography apparatus.

41. (Withdrawn) A plasma treatment apparatus according to claim 38, wherein the first electrode and the plurality of second electrodes are covered with a dielectric.

42. (Withdrawn) A plasma treatment apparatus according to claim 38, wherein the voltage is applied to the predetermined electrode for performing a film formation, an etching treatment, or a surface modification over an object to be treated.

43. (Withdrawn) A plasma treatment apparatus according to claim 38 further comprising a stage to which an object to be treated is fixed,
wherein a scanning of the stage is synchronized with the application of the voltage to the predetermined electrode.

44. (Withdrawn) A plasma treatment apparatus according to claim 42, wherein the film formation, the etching treatment, or the surface modification is performed under atmospheric pressure or under pressure approximate to atmospheric pressure.

45. (Previously Presented) A plasma treatment apparatus according to claim 1, wherein the blown process gas acts on the subject substrate.

46. (Previously Presented) A plasma treatment apparatus according to claim 2, wherein the blown process gas acts on the subject substrate.

47. (Previously Presented) A plasma treatment apparatus according to claim 3, wherein the blown process gas acts on the subject substrate.

48. (Withdrawn) A plasma treatment apparatus according to claim 24, wherein the blown process gas acts on the subject substrate.

49. (Withdrawn) A plasma treatment apparatus according to claim 31, wherein the blown process gas acts on the subject substrate.

50. (Withdrawn) A plasma treatment apparatus according to claim 38, wherein the blown process gas acts on the subject substrate.

51. (Previously Presented) A plasma treatment apparatus according to claim 1, wherein the plasma generation unit is adapted for movement in an X direction and a Y direction relative to the position of the subject substrate.

52. (Previously Presented) A plasma treatment apparatus according to claim 2, wherein the plasma generation unit is adapted for movement in an X direction and a Y direction relative to the position of the subject substrate.

53. (Previously Presented) A plasma treatment apparatus according to claim 3, wherein the plasma generation unit is adapted for movement in an X direction and a Y direction relative to the position of the subject substrate.

54. (Withdrawn) A plasma treatment apparatus according to claim 24, wherein the plasma generation units are adapted for movement in an X direction and a Y direction relative to the position of the subject substrate.

55. (Withdrawn) A plasma treatment apparatus according to claim 31, wherein the plasma generation unit is adapted for movement in an X direction and a Y direction relative to the position of the subject substrate.

56. (Withdrawn) A plasma treatment apparatus according to claim 38, wherein the plasma generation unit is adapted for movement in an X direction and a Y direction relative to the position of the subject substrate.